# **SERVICE MANUAL**

# CASSETTE TAPE DECK



RD5035



## **SPECIFICATIONS**

Tape

Recording system Erasing system

Tape speed Recording time

Rewind and fast forward time

Wow and flutter

Frequency response

Signal to noise ratio

Input

Output

Power source

Power consumption Dimensions

Weight

Metal, CrO2, Fe-Cr, Low noise and Standard tape

AC bias, 4 tracks stereo AC erasing, 2 tracks

1-7/8 ips. (4.75 cm/sec.)

60 min. (C-60 cassette tape) 100 sec. (C-60 cassette tape)

0.05% WRMS

30 - 19,000Hz (Metal tape)

30 - 16,000Hz (CrO2 or Fe-Cr tape)

30 - 13,000Hz (Normal tape)

63 dB (Dolby NR switch on) 55 dB (Dolby NR switch off)

MIC: 400 – 10k ohms (0.3 mV)

DIN (REC/PLAY): 5k ohms (1 mV)

LINE IN: 50k ohms (50 mV)
DIN (REC/PLAY): 3k ohms (0.53 V)

LINE OUT: 3k ohms (0.53 V)

PHONES: 8 - 10k ohms (25 mV)

AC: 115/220V, 50Hz

10 W

16-5/8"(W) x 10-5/8"(D) x 5-1/4"(H)

(420 x 270 x 132 mm)

Approx. 10 lbs. 9 ozs. (4.8 kg)

<sup>\*</sup> Specifications subject to change without notice.

## HOW TO REMOVE THE CABINET AND CHASSIS

#### 1) How to remove the cabinet

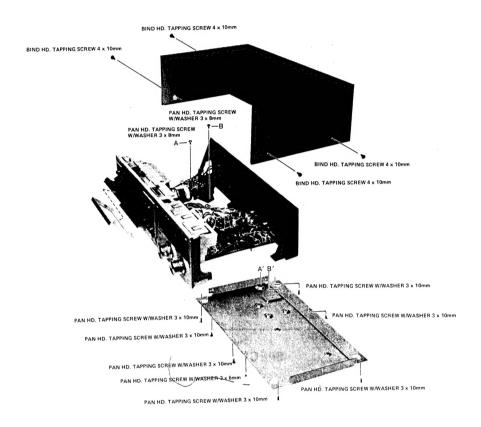
- a) Unscrew four bind head tapping screws (4 x 10mm) used to fasten the cabinet.
- b) The cabinet can be removed if its laterals are lifted up in parallel.

## 2) How to detach the bottom lid

- a) Unscrew three pan head tapping screws (3 x 10mm) used to fasten the bottom lid with the front panel, and furthermore unscrew two pan head tapping screws (3 x 10mm) used to fasten the bottom lid with the mechanism.
- b) Unscrew two pan head tapping screws (3 x 8mm) used to fix the power transformer.
- c) Detach three fixers used to shape lead wires from the bottom lid.
- d) As two brackets (8) used to fix the amplifier substrate (printed circuit board) with the bottom lid, it can be removed.

## 3) How to remove the mechanism

- a) Unscrew two pan head tapping screws (3 x 10mm) used to fasten the bottom lid with the mechanism and two pan head tapping screws (3 x 10mm) used to fasten the front panel with the mechanism.
- b) As the spring coil (24) which connects the mechanism with the R/P switch is detached, the mechanism can be removed.



Items of adjustment	Tape to be used	Points of measure- ment	Input terminal	Fre- quency	Input level	Equalizer switch	Bias switch	Dolby switch	Places of adjustment	Value
Head azimuth	VTT-658 10 kHz –15 dB	LINE OUT				NORMAL	NORMAL	OFF	Re-adjust- ment of head	Max.
Playback output	MTT-150 (Dolby tape)	LINE OUT		-		NORMAL	NORMAL	OFF	SVR701 SVR801	0.75V
VU meter	Blank Tape	LINE OUT VU meter	LINE IN	1 kHz	-23 dB	NORMAL	NORMAL	OFF	SVR704 SVR804	0.53V 0 dB (METER)
REC/PLAY frequency response	AC 211	LINE OUT	LINEIN	1 kHz 10KHz	-43 dB	NORMAL	NORMAL	OFF	SVR703 SVR803	±0 ∼ +0.5 dB
Record gain	CN-32508	LINE OUT	LINE IN	1 kHz	-23 dB	METAL	METAL	OFF	SVR702 SVR802	0.53V

## AMPLIFIER ADJUSTMENTS

Adjust the OUTPUT LEVEL control knob to the maximum for all adjustment.

## 1. HEAD AZIMUTH

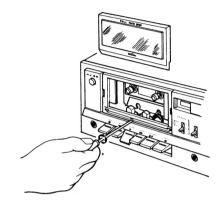
EQ. Bias select switches; NORMAL

Dolby switch; OFF

Tape to be used; VTT-658 (10 kHz,-15 dB) Load a test tape and press the PLAY button.

Adjust the head azimuth screw so the LINE OUT level becomes maximum.

Repeat the adjustment on both channels and both sides of the tape.



## 2. PLAYBACK OUTPUT

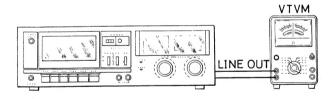
EQ. Bias select switches; METAL

Dolby switch; OFF

Tape to be used; MTT-150 (Dolby tape)

Load a test tape and press the PLAY button.

Adjust SVR701 and SVR801 so the LINE OUT level becomes 0.75V

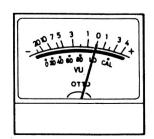


## 3. LEVEL METER

EQ. Bias select switches; NORMAL

Dolby switch; OFF

Set the unit to the REC mode, and the input signal at -23 dB (1 kHz) to record input terminals. Adjust INPUT LEVEL control knobs so the monitor output becomes 0.53V, then adjust SVR704 and SVR804 to obtain 0 VU indication of the LEVEL meter.



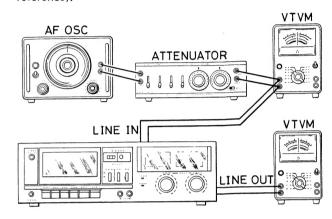
#### 4. REC/PLAY FREQUENCY CHARACTERISTICS

EQ. Bias select switches; NORMAL

Dolby switch; OFF Load a test tape: CA211

Set INPUT LEVEL control knobs to the same position as item 3 and the input signal level at  $-43~\mathrm{dB}$  (1 kHz and 10 kHz). Record 1 kHz and 14 kHz signal, then playback these signals.

Adjust SVR703 and SVR803 so the VTVM indication for the 14 kHz playback signal is within a range from 0 dB to +0.5 dB (with the 1 kHz response as 0 dB reference).



#### 5. RECORD GAIN

EQ. Bias select switches; NORMAL

Dolby switch; OFF

Load a test tape; CN32508

Set INPUT LEVEL control knobs to the same position as item 3 and the input signal level at  $-23~\mathrm{dB}$  (1 kHz). Record 1 kHz signal and play it back.

Adjust SVR702 and SVR802 so the playback output becomes 0.53V.

## **MECHANISM ADJUSTMENTS**

## 1. TAKE-UP TORQUE

Set the unit to PLAY, F.FWD or REW mode.

Measure each torque with a torque gauge.

Each torque should be as follows;

PLAY 35-60 g/cm

FAST FORWARD 55 - 95 g/cm

REWIND 60 — 100 g/cm

If each torque fails to reach the standard value, clean the drive belt, flywheel, motor pulley, take-up reel idler and rewind roller with a cotton swab soaked in alcohol.



Figure 1.

## 2. BACK TENSION

To measure back tension with tension gauge, make a hole in the side of the cassette as shown in figure two. Be sure the tape does not rub against the edge of the cassette, or correct measurement will be impossible.

PLAY Less than 5 g/cm FAST FORWARD Less than 5 g/cm REWIND Less than 5 g/cm

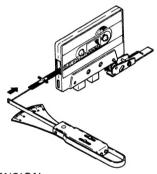


Figure 2.

## 3. TAPE TENSION

Cut off a length of tape. Tie one end to a thread connected to the tension gauge, and leave the other end hanging loose as shown in figure three.

Operate the unit in PLAY mode and hold the tension gauge steady,

When the tape stops, read the tension gauge. If this reading is over 120 gram, no adjustment is needed. If it is under 120 gram, adjust the pinch-roller pressure. This is done by bending the spring wire 38 (141-2-852T-47400) shown in the mechanism exploded view. Clean the pinch roller with alcohol so the tape will not slip.

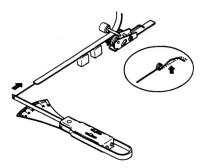


Figure 3.

#### 4. TAPE SPEED

Remove the cabinet

Connect a tape speed counter to LINE OUT terminal (left or right channel) of the unit.

Load a test tape (MTT-111) and operate the unit in PLAY mode.

Turn semifixed variable resistor of the motor clockwise or counterclockwise to obtain 3 kHz indication of the tape speed counter.

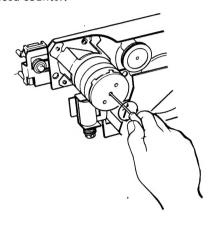
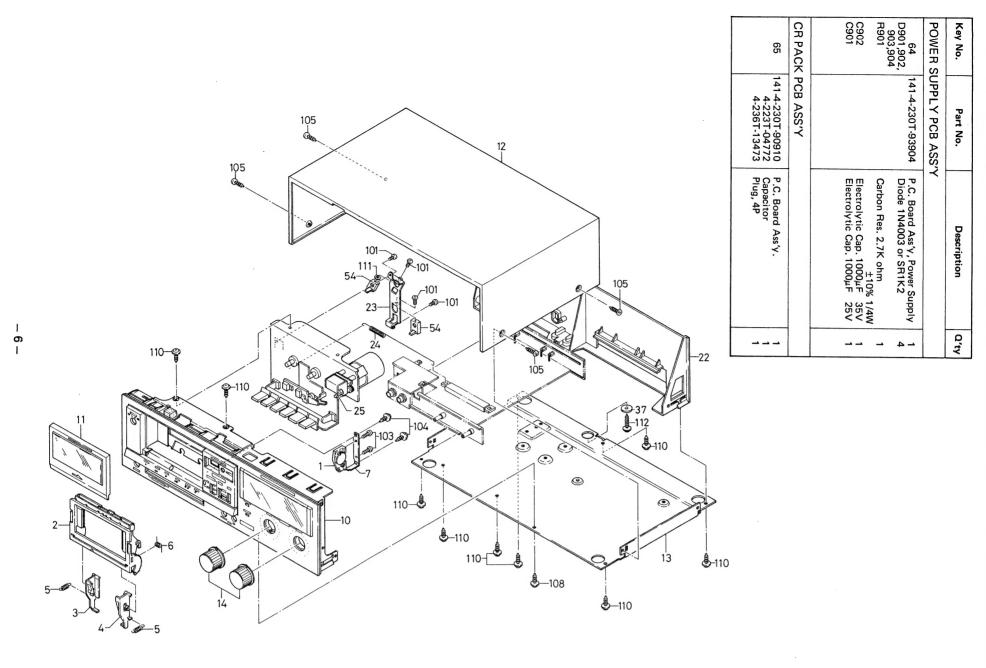


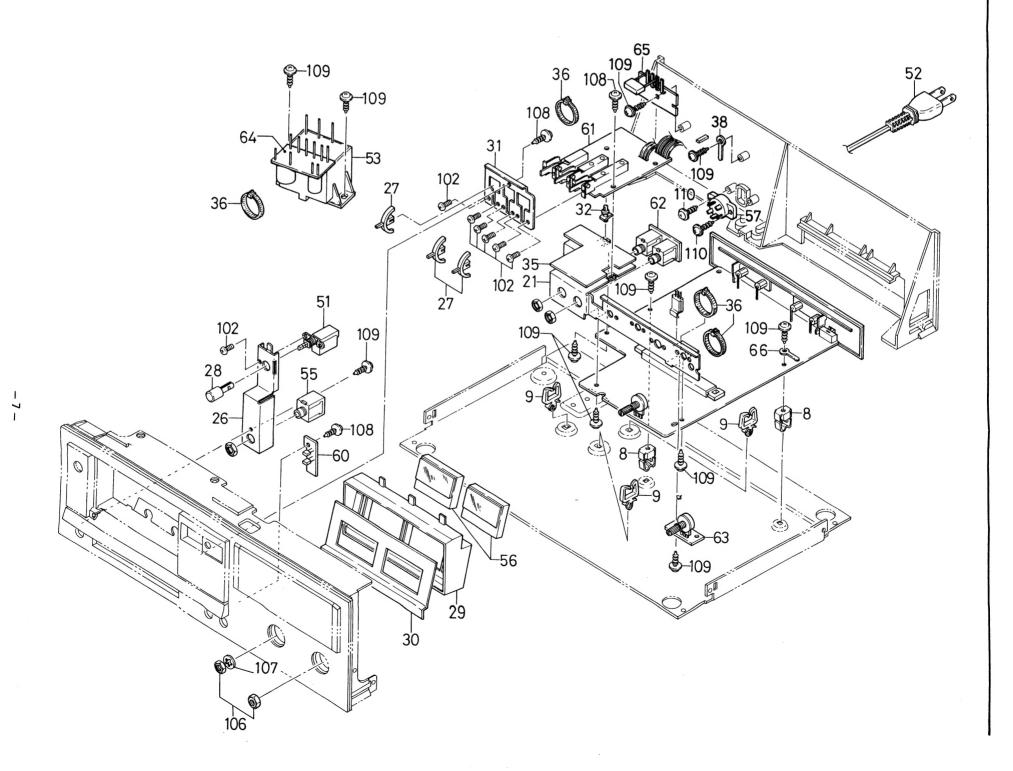
Figure 4.

Key No.	Part No.	Description	Q'ty	Key No.	Part No.	Description	Q'ty
PACKING	ì			ELECTRI	CAL PARTS		
	141-6-133T-09203 141-6-144T-60800 141-6-231T-20300 141-6-231T-10300 141-6-231T-10200 141-6-231T-50700 141-6-479T-31400 141-6-479T-07700	Individual Carton Foam Plastic Case Inner Polye Cover, Inst B Inner Polye Cover, AC Cord Inner Polye Cover, Acce Cord Inner Polye Cover Label Label	1 2 1 1 1 1 1	51 52 53 54 55 56 57	4-238T-12873 4-243T-77172 4-243T-83200 4-300T-11400 4-231T-51300 4-235T-44871 4-511T-09676 4-238T-13000	Power Switch Power Cord Power Cord Power Trans Switch, Play/Stop/Muting Socket, Headphone Meter Switch, Voltage Select	1 1 2 1 2 1
ACCESSO	DRY			MAIN AM	P PCB ASS'Y		
	141-6-410T-37103 4-241T-12900 4-243T-13303	Instruction Manual Cassette Tape C-60 Lead Cord Ass'y	1 1 1	59 S1 L501,551 L703,803 VR701	141-4-233T-26172 4-238T-09200 4-255T-01672 4-258T-25300 4-255T-01900 4-236T-10200 4-222T-81290	P.C. Board Ass'y, Main Amp R/P Switch MX Coil OSC Coil MX Coil Plug, R/P Head Variable Resistor, Mic/Line	1 1 2 1 2 1
CABINET	Γ		T	SVR704, 804	4-222T-70873	Variable Resistor, 2K-R	2
1 2	141-0-581T-07100 141-2-224T-10600	Gear Ass'y Bracket, Lid	1	SVR701, 801	4-222T-70875 4-222T-70878	Variable Resistor, 10K-R  Variable Resistor, 100K-R	2
3 4 5	141-2-210T-06800 141-2-210T-06900 141-2-855T-29700	Bracket, Cassette Holder Bracket, Cassette Holder Spring Coil, Cassette Holder	1 1 2	SVR703, 803 SVR702,	4-222T-70676 4-222T-39575	Variable Resistor	2
6 7 8 9	141-2-855T-37900 141-2-310T-22600 141-2-210T-08900 141-2-464T-29900	Spring Coil, Lid Bracket, Gear Bracket, PCB Fixer	1 1 2 3	802 S9 IC701,	4-235T-55472 4-231T-42100	Socket Switch, Mic/Line Select IC LA3160 T, Pre Amp	1 1 1
10 11	141-0-122T-32004 141-0-124T-26500	Front Panel Ass'y Cassette Comp Lid Ass'y	1	801 IC501,		IC LM1011N, Dolby Amp	2
12 13 14	141-2-111T-41701 141-2-125T-18901 141-0-156T-24400	Cabinet Bottom Lid Knob Ass'y, Volume	1 1 2	551 Q702,802, 705,805		Transistor 2SC536 AUD	4
14	141-0-1561-24400	Kilob Ass y, volume	-	Q703,803 Q902,903 D908,910 D701,801,		Transistor 2SD545 Transistor 2SA826 Diode 1S2473 Diode 1N60 FM	2 2 2 4
CHASSIS			T	702,802 D907		Zener Diode WZ182	1
21 22 23 24 25 26	141-2-361T-17200 141-0-126T-32109 141-2-365T-10100 141-2-855T-52100 141-2-156T-06101 141-2-365T-50300	Bracket, Volume Back Lid Ass'y Bracket, Muting Switch Spring Coil, Rec Knob, Counter Bracket, Power Switch	1 1 1 1 1	D911 Q601,602, 701,704, 801,804 Q901		Diode YZ047 Transistor 2SC945 Transistor 2SD400	1 6
27 28 29 30 31 32 35 36 37	141-2-162T-17300 141-2-156T-17501 141-2-373T-06900 141-2-153T-54700 141-2-361T-17100 141-2-210T-18800 141-2-246T-66401 141-2-464T-20671 123-2-453T-10500	Lever Knob Knob, Power Switch Bracket, Meter Escutcheon, Meter Bracket, Switch Bracket, PCB Sheet Fixer Plastic Washer, AC Cord	3 1 1 1 1 1 1 15 1	R903 R922 R906 R721,821 R910 R714,814 R909 R912,806 R720,820	RESISTORS	Solid 1.5K ohm	1
HARDW	ARE .	<u></u>		R502,701,     801			1
101 102 103 104 105		Pan Head Screw 2.6×4mm Pan Head Screw 3×6mm Tapping Screw 2.6×8mm Tapping Screw 3×8mm Binding Head Tapping Screw 4×10mm	4 7 2 1 4	R907 R604 R916,917 R555 R905,812,		Carbon 12K ohm	1 2 1 3
106 107		Nut 7mm Internal Tooth Lock Washer 7mm	1 1	R716,816 R715,815 R717,817		Carbon 1.5K ohm ±5% 1/4W Carbon 1K ohm ±5% 1/4W	2 2
108		Tapping Screw with Washer 3x6mm	4	R822 R908		Carbon 150 ohm ±5% 1/4W Carbon 100 ohm ±5% 1/4W Carbon 56K ohm ±5% 1/4W	1 1
109		Tapping Screw with Washer 3x8mm	9	R738 R706 R914,552		Carbon 56K ohm ±5% 1/4W Carbon 120K ohm ±5% 1/4W Carbon 33K ohm ±5% 1/4W	1 2
110 111 112	141-2-453T-01700	Tapping Screw with Washer 3x10mm Fiber Washer 3x10x1mm Tapping Screw with Washer 3x12mm	1 1	R729,829 R732,832 R702,802, 723,823		Carbon 18K ohm	2 2

Key No.	Part No.	Description	1	Q'ty	Key No.	Part No.	Description	·	Q'ty	
MAIN AM	MAIN AMP PCB ASS'Y				MAIN AMP PCB ASS'Y					
R708,808 R728,828 R505 R712,818, 736,836		Carbon 2.2K ohm ± Carbon 3.3K ohm ±	±5% 1/4W ±5% 1/4W ±5% 1/4W ±5% 1/4W	2 2 1 4	C601 C602 C920		Electrolytic 10µF 1	6V 6V 25V ±20%	1 1 1	
R918 R731,831		Carbon 1.5K ohm ±	5% 1/4W	2	LED PCB	A22'V	1			
R921 R722 R606 R707,807 R605 R805 R810 R915 R911 R709,809		Carbon 150 ohm Carbon 10 ohm Carbon 3.3K ohm Carbon 5.6K ohm Carbon 68 ohm Carbon 180K ohm Carbon 33K ohm	±5% 1/4W ±5% 1/4W ±5% 1/4W ±5% 1/4W ±5% 1/4W	1 1 1 2 1 1 1 1 1 1 2	60 D906 D905 R902	141-4-233T-26301	P.C. Board Ass'y, LEI LED SLB26YY Yello LED SLB26UR 1 Rec Solid Res. 3.3K ohm	w	1 1 1	
R920		Carbon 100 ohm ±	5% 1/4W 5% 1/4W	1 1	SWITCH	PCB ASS'Y	L			
R705 R904		Carbon 82K ohm ±	5% 1/4W	1			B.O. B I. A I. Suit		1	
R557 R501,551 R508,558 R509,559, 510,560 R710 R730,830		Carbon 1M ohm	5% 1/4W 5% 1/4W 5% 1/4W	1 2 2 4 1 2	61 S3 S2 S4 L702,802	141-4-233T-26203 4-238T-09300 4-238T-09400 4-238T-10300 4-253T-01009 4-253T-01006	P.C. Board Ass'y Swit Switch, Dolby/Bias Switch, EQ Switch, Dolby Hi-Frequency Choke 2.2mH Hi-Frequency Choke	Coil	1 1 2 2	
R913 R838			5% 1/4W 5% 1/4W	1 1			3.3mH	•		
						RESISTORS				
C728,828 C705,805 C727,827 C702,802 C706,806 C708,808 C710,810 C701,801 C723,823 C712,812, 713,813, 716,816	CAPACITORS	Ceramic 330pF Ceramic 470pF Ceramic 560pF Ceramic 0.001µF Mylar 0.022µF Mylar 0.018µF Ceramic 0.001µF Electrolytic 1µF Electrolytic 2.2µF	50V ±10% 50V ±10% 50V ±10% 50V ±10% 50V ±10% 50V ±500 50V ±5% 50V ±5% 50V ±50 25V	2 2 2 2 2 2 2 2 2 2 2 6	R554 R726 R725 R553 R504 R826 R727,827 R825 R734,834 R503 R601 R602 R603 R741,742,		Carbon 3.3K ohm Carbon 3.9K ohm Carbon 180 ohm Carbon 15K ohm Carbon 3.9K ohm Carbon 2.2K ohm Carbon 10 ohm Carbon 47 ohm	10% 1/4W 10% 1/4W 10% 1/4W 10% 1/4W 10% 1/4W 10% 1/4W 10% 1/4W 10% 1/4W 10% 1/4W 10% 1/2W 10% 1/2W 10% 1/2W 10% 1/2W 10% 1/2W	1 1 1 1 1 2 1 2 1 1 1	
C711,811 C709,809 C729,829 C703,803, 730,830 C714,814 C707,807 C715,815		Electrolytic 4.7µF 2 Electrolytic 4.7µF 1 Electrolytic 10µF 1	25V 16V 16V	2 2 4 2 2 2 2	743,744, 745,841, 842,843, 844,845	CAPACITORS	Carbon III 3	10/01/11		
C905 C906 C909 C903,904 C910 C911 C502,552 C507,557, 509,559 C607		+40-20% Electrolytic 10μF Electrolytic 47μF Electrolytic 220μF Electrolytic 47μF Electrolytic 470μF Ceramic 220pF Ceramic 0.001μF	25V 16V 25V 25V 16V	1 1 1 2 1 1 2 4	C718,818 C724,824 C719,819 C726,826 C720,820 C722,822 C721,821		Mylar 0.0033µF Mylar 0.022µF Mylar 0.022µF Mylar 0.033µF Mylar 0.039µF	50V ±10% 50V ±5% 50V ±5% 50V ±5% 50V ±5% 50V ±5% 50V ±5%	2 2 2 2 2 2 2 2 2	
C606 C603		Mylar 0.0068µF	50V ±5% 50V ±5% 50V ±5%	1 1	MIC PCB	ASS'Y				
C512,562, 604,605 C511,561 C514,564 C516,566 C503,553, 501,551,		Mylar 0.047μF 5  Mylar 0.0056μF 5  Mylar 0.027μF 5  Mylar 0.047μF 5	50V ±5% 50V ±5% 50V ±5% 50V ±5% 50V ±5% 25V	2 2 2 5	62 R703,803	141-4-233T-27771 4-235T-44971 4-235T-42871	P.C. Board Ass'y, Mic Socket, Mic R Socket, Mic L Carbon Res. 4.7K oh		1 1 1 2	
907 C508,558,		Electrolytic 4.7μF	25V	4			<u> </u>			
510,560 C513,563,	•	Electrolytic 10μF	16V	6	VOLUM	E PCB ASS'Y	1		T	
515,565, 517,567 C520,570 C518,568		Electrolytic 220µF AL Electrolytic 0.1µ		2 2	63 VR801	141-4-233T-34400 4-222T-81290	P.C. Board Ass'y, Vo Variable Resistor	olume	1	
C519,569		+40-20% AL Electrolutic 0.33 +40-20%	βμF 16V	2						







## PARTS LIST \_\_\_\_\_

Cey No.	Part No.	Description	Q'ty
ИЕСНА	NISM		
1	141-0-311T-28021	Chassis Ass'y	1
2	141-2-742T-25800 141-2-742T-18300	Lever, Cassette Lid Lock Lever	1
4	141-2-7421-18300 141-2-852T-47300	Spring Wire	1
5	141-2-852T-48400	Spring Wire	1
6	141-2-753T-41400	Shaft, Lever	1
7 8	141-2-747T-16400 141-2-457T-23800	Bracket, Lever Special Washer	1 4
9	141-2-742T-14500	Lever	1
10	141-2-852T-47200	Spring Wire	1
11	141-2-853T-48601	Spring Plate, Main Switch	1
12 13	141-2-853T-48500 4-237T-05800	Spring Plate, Main Switch Terminal Board	1
14	4-527T-10374	1,	1
	4-527T-10373	or Motor	1
15	141-2-378T-09600	Bracket, Motor	1
16 17	141-2-464T-20671	Screw, Headless 2x4mm Fixer	2
18	141-2-421T-12501	Special Screw, Motor	2 3 3 1
19	141-2-445T-11801	Rubber Cushion	3
21	141-2-351T-46300	Bracket Mounting	1 2
22	123-2-472R-00400 141-0-545T-05000	Lug Lever, Pinch Roller Ass'y	1
24	141-2-457T-23000	Special Washer	6
25	141-2-811T-04700	Counter	1
26	141-2-812T-07300	Bracket, Counter	1
27 28	141-2-564T-19100 141-2-661T-73300	Square Belt Pulley, Motor	1
29	141-0-521T-09001	Flywheel Ass'y	1
30	141-2-457T-04300	Special Washer	1
31	141-0-661T-26300 123-2-472R-00601	Pulley Ass'y F.F. Rew	1 2
33	141-2-561T-04501	Flat Belt, Main	1
34	141-0-524T-07901	Bracket, Flywheel Ass'y	1
35	141-2-731T-58600	Slide, Head	1
36 37	141-2-464T-32000 141-2-851T-82700	Fixer Spring Coil	1 1
38	141-2-852T-47400	Spring Con	1
40	4-242T-23372	Head, E	1
41	123-2-472R-00200	Lug	1
42 44	141-2-472T-05900 141-2-345T-00400	Lug   Steel Ball	2 4
45	141-2-853T-54900	Spring Plate	1
46	4-235T-34600	Socket, E Head	2
47 48	4-235T-60200 4-242T-24200	Socket, R/P Head   Head, R/P	1 1
49	141-0-531T-11800	Reel Plate Ass'y, Tack Up	1
50	141-2-453T-30101	Washer 2.1x4x0.25	6
51	141-2-547T-02100	Roller, Tack Up	1
52 53	141-0-581T-10600 141-2-853T-54500	Gear Ass'y Spring Plate	1 1
54	141-2-457T-13300	Special Washer	1
55	141-2-453T-30500	Washer 4.1x6.5x0.13	2
56	141-2-671T-05500	Cum Spring Cail	1
57 58	141-2-855T-23500 141-2-457T-13000	Spring Coil Special Washer	1
59	141-2-453T-30501	Washer 4.1×6.5×0.25	1
60	141-2-457T-23700	Special Washer	2
61	141-0-531T-11801	Reel Plate Ass'y, Supply	1
62 63	141-2-457T-14000 141-2-457T-14100	Special Washer Special Washer	2
64	141-2-457T-11000	Special Washer	3
65	141-2-581T-10700	Gear, Rew	1
66	141-2-855T-23200	Spring Coil	1
67 68	141-2-661T-26500 141-0-551T-01720	Pulley, Rew Idler Ass'v	1
69	141-2-661T-26600	Pulley	1
70	141-2-852T-47800	Spring Wire	1
71	141-2-453T-31600	Washer 1.6x4x0.25mm	2
72 73	141-2-853T-54400 141-2-457T-13100	Spring Plate, F.F. Rew Special Washer, F.F. Rew	1
74	141-0-581T-10400	Gear Ass'y, F.F. Rew	1
75	141-0-581T-10500	Gear Ass'y, F.F.	1
76 77	141-2-457T-23100 141-2-855T-23400	Special Washer	1
78	141-2-8551-23400 141-2-457T-13600	Spring Coil   Special Washer	1
79	141-2-564T-18301	Square Belt	i

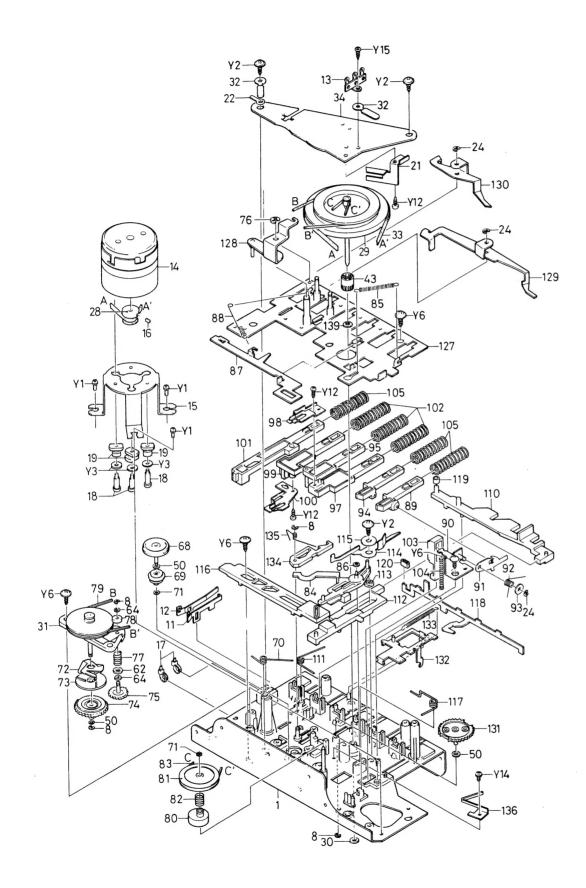
Key No.	Part No.	Description	Q'ty
MECHAI	NISM		
80	141-2-671T-05600	Cum, Autostop	1
81	141-2-661T-26400	Pulley, Autostop	1
82	141-2-855T-30300	Spring Coil	1
83	141-2-564T-18401	Square Belt, Autostop	1
84	141-0-742T-14100	Lever Ass'y	1
85	141-2-855T-23101	Spring Coil	1
86	141-2-457T-14300	Special Washer	1
87	141-2-742T-13900	Lever	1
88	141-2-855T-26300	Spring Coil	1
89	141-0-731T-59100	Slide Ass'y	1
90	141-0-747T-17200	Bracket Lever Ass'y	1
91	141-2-742T-13800	Lever	1
92	141-2-852T-47700	Spring Wire	1
93	141-2-453T-00800	Washer 3x8x0.5mm	1
94	141-2-731T-59100	Slide, Stop Button	1
95	141-0-731T-58900	Slide Ass'y, Play Button	1
96	141-2-855T-11800	Spring Coil	1
97	141-2-731T-59000	Slide, F.F.	1
98	141-2-853T-54800	Spring Plate F.F.	1
99	141-2-731T-58800	Slide, Rew Button	1
100	141-2-853T-54700	Spring Plate, Rew	1
101	141-2-731T-58700	Slide, Rec Button	1
102	141-2-855T-23000	Spring Coil	3
103	141-2-731T-64300	Slide, Eject	1
104	141-2-855T-30200	Spring Coil	1
105	141-2-855T-29500	Spring Coil	3
106	141-2-742T-14000	Lever	1
107	141-2-731T-65600	Slide	1
108	141-2-712T-02700	Brake Shoe	1
109	141-2-853T-49000 141-2-742T-14200	Spring Wire	1
110 111	141-2-7421-14200 141-2-852T-47500	Lever	1
112	141-2-731T-59200	Spring Wire Slide	1
113	141-2-683T-34200	Ring	1
114	141-2-853T-54601	Spring Plate	1
115	141-2-457T-33400	Special Washer	1
116	141-2-731T-59301	Slide	1
117	141-2-852T-47600	Spring Wire	1
118	141-2-731T-61100	Slide, Lock	1
119	141-2-490T-08301	Tube	1
120	141-2-490T-08000	Tube	1
121	141-2-611T-12000	Lever, Push Button, Play, Rew. F.F.	3
122	141-2-611T-11900	Lever, Push Button, Stop	1
123	141-2-611T-12100	Lever, Push Button, Pous	1
124	141-2-611T-12001	Lever, Push Button, Rec	1
125	141-2-753T-34300	Shaft	1
126	141-2-457T-23600	Special Washer	2
127	141-0-737T-05900	Bracket, Slide Ass'y	1
128	141-0-742T-25700	Lever Ass'y, Rec	1
129	141-2-742T-19800	Lever, Stop	1
130	141-2-742T-19901	Lever, Plug	1
131	141-0-581T-11900	Gear Ass'y	1
132	141-0-731T-61000	Slide Ass'y	1
133	141-2-855T-25300	Spring Coil	1
134	141-2-742T-19600	Lever	1
135	141-2-852T-48900	Spring Wire	1
136 <b>139</b>	141-2-853T-56800 141-2-453T-30201	Spring Plate   Washer 2.5x5x0.25 Nylon	1
	: 141-24051-5020	L VVASCIET / D X D X U . ZD IVV IOII	. 1

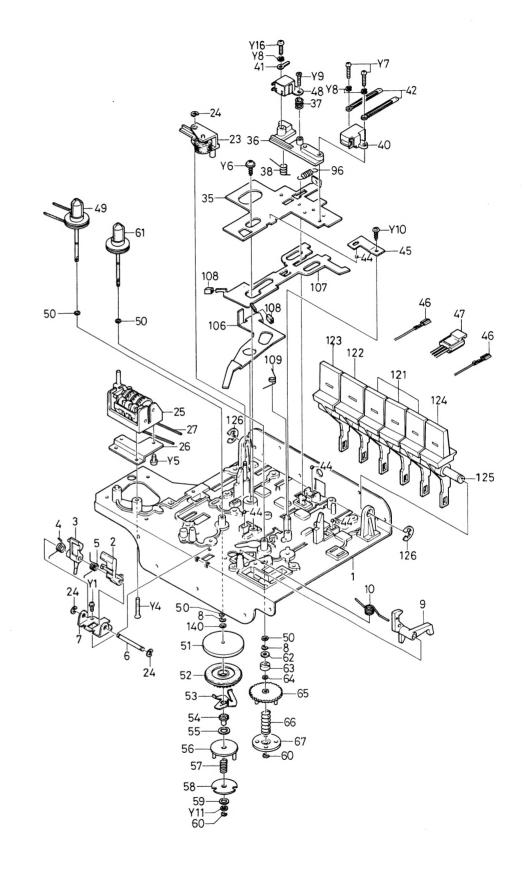
--8-

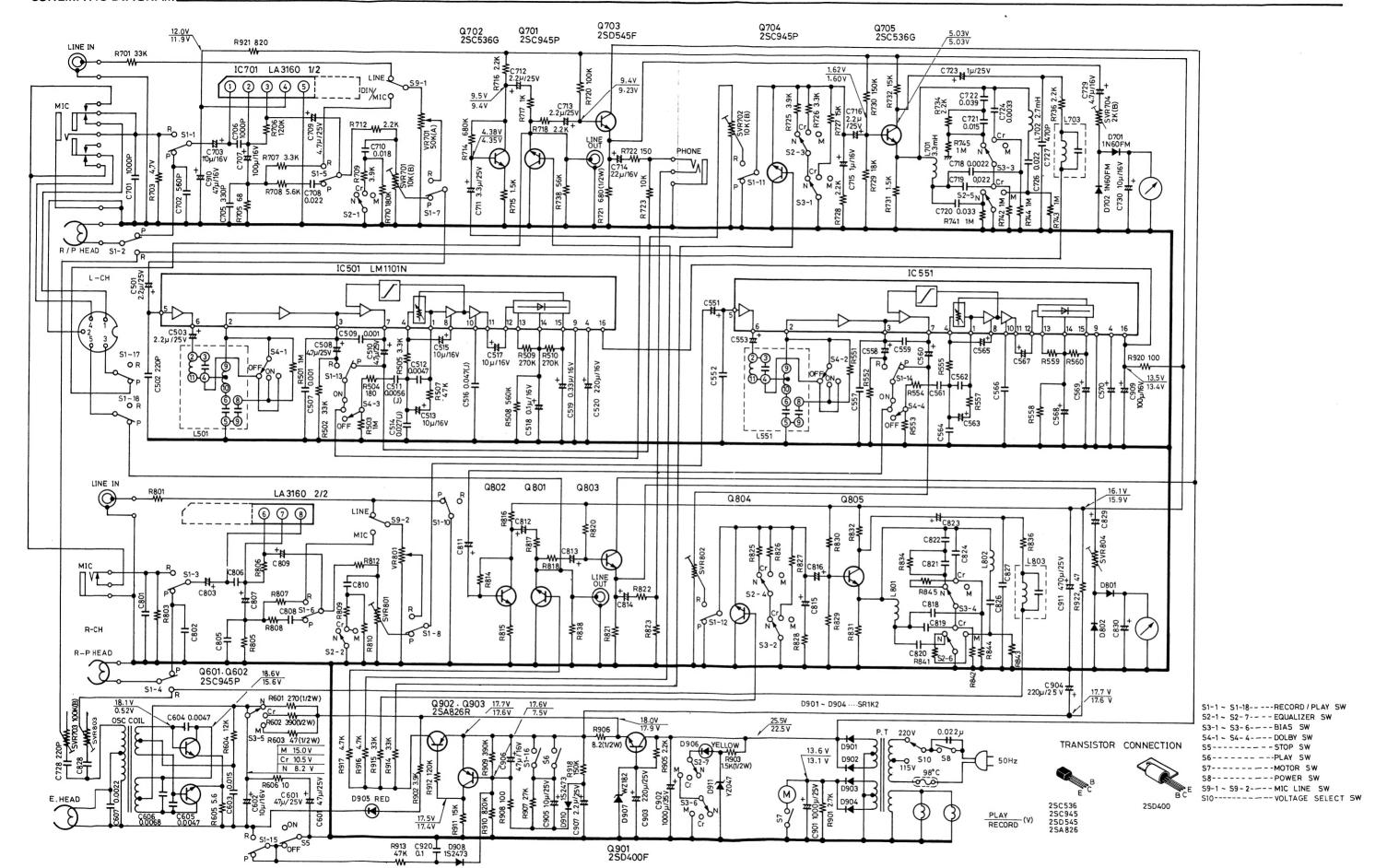
## PARTS LIST\_\_\_\_\_

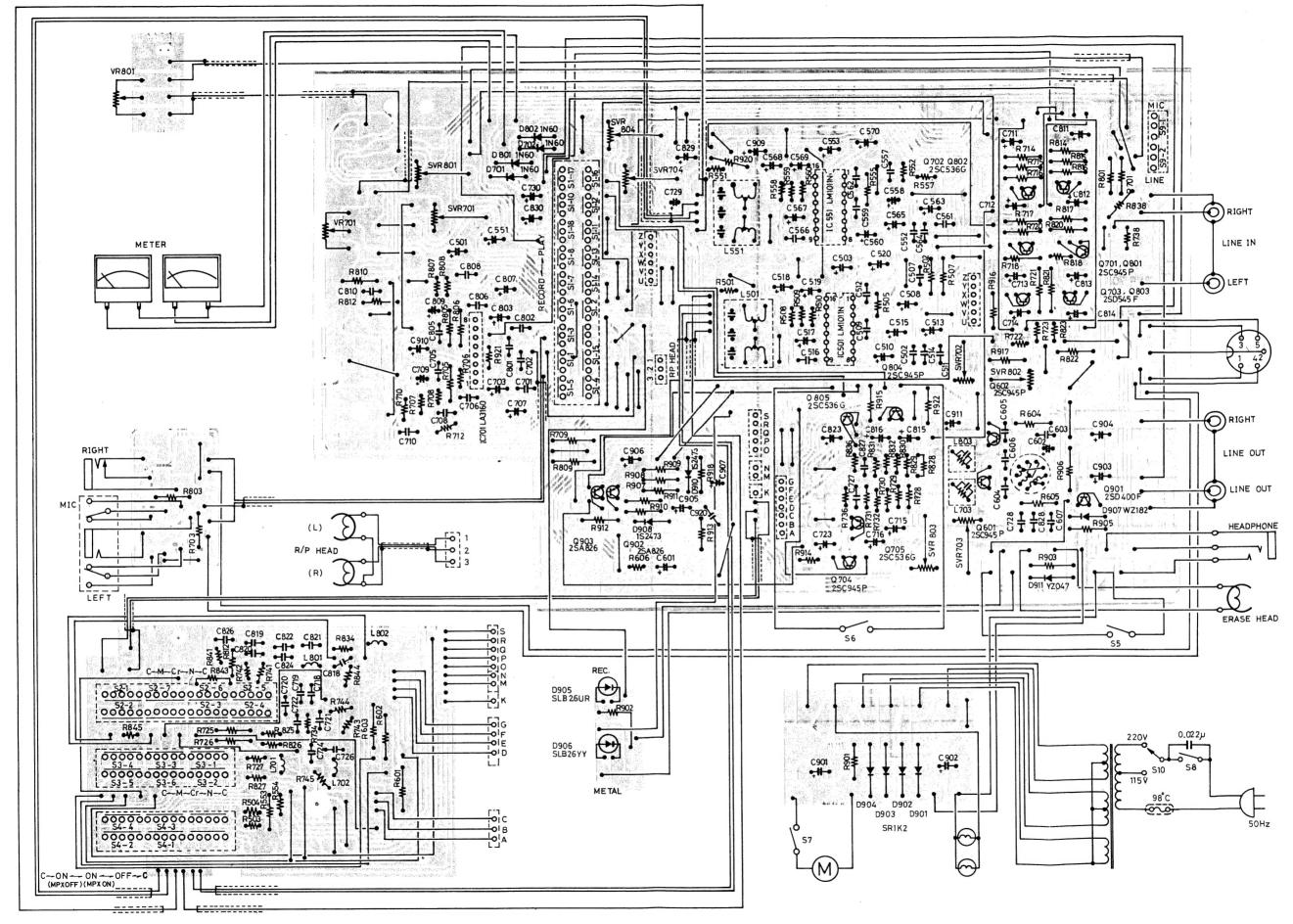
Key No.	Part No.	Description	Q'ty						
MECHAN	MECHANISM HARDWARE								
Y1		Pan Head Screw W/Spring	5						
Y2		Washer 2.6x4mm Pan Head Tapping Screw	3						
Y3		W/Washer 3 x 8mm Washer 3 x 8 x 0.5mm	4						
Y4		Flat Head Screw 3x 16mm	1						
Y5		Pan Head Screw 3x6	2						
Y6		Pan Head Tapping Screw W/Washer 3x6mm	4						
Y7		Pan Head Screw 2x11mm	2						
Y8		Spring Washer 2mm	3						
Y9		Flat Head Screw 2x 11mm	1						
Y10		Tapping Screw 3 x 6mm	1						
Y11		Washer 2x6x0.5mm	i						
Y12		Tapping Screw 2.3 x 6mm	2						
Y14		Pan Head Screw 2.6 x4mm	1						
Y15		Pan Head Screw W/Spring Washer 3 x 4mm	i						
Y16		Pan Head Screw 2x 10mm	1						

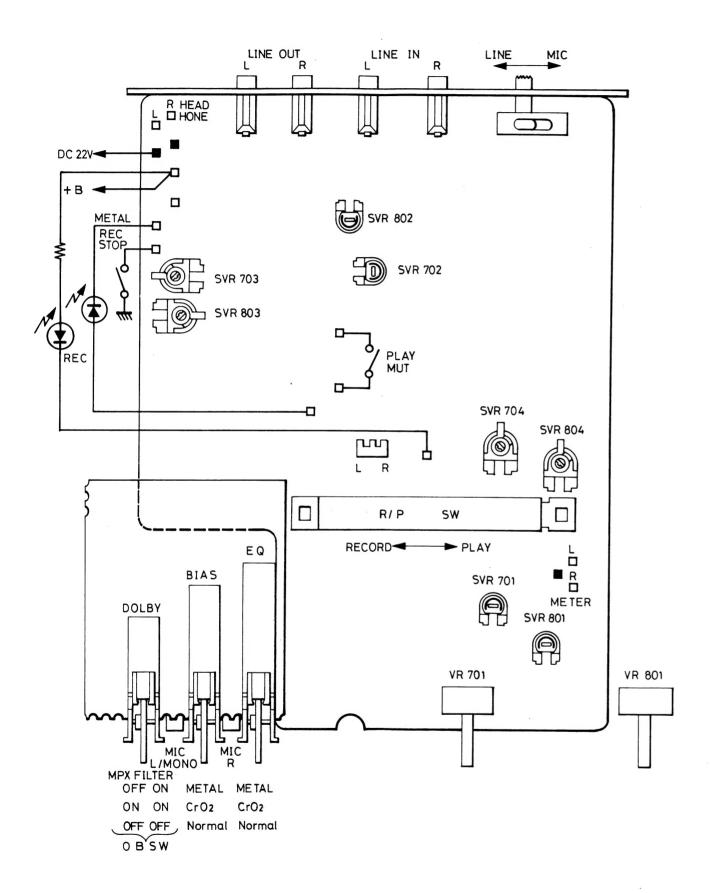
-9-











33, Hiyoshi-cho, 2-chome, Moriguchi-shi Osaka-fu, 570 Japan

Nov./79/1300 SI Printed in Japan